

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nathaniel T Wallace on 6/16/2008.

The application has been amended as follows:

In claim 30, line 1, "28" has been replaced with --26--.

The change has been made to correct the dependency over a canceled claim.

***Allowable Subject Matter***

2. Claims 26, 29-35 and 37-38 are allowed.
3. The following is an examiner's statement of reasons for allowance:

It is agreed that the prior art of record fail to teach or suggest alone or in combination, the limitations: "forming a conductive via stub in the substrate extending from the first surface and to the second surface, wherein the conductive via stub is a radiating element of the antenna, the conductive via stub having a first diameter exposed at the first surface and a second diameter exposed at the second surface, the second diameter being greater than the first diameter; and a ground plane disposed on the first surface having an opening surrounding the conductive via stub and a contact pad disposed on the conductive via stub within the opening" as claimed in claim 26, and "forming an interposer device comprises depositing an insulation layer over the

substrate of the antenna having the ground depositing a conductive layer over the insulation layer; patterning the conductive layer to form one or more contact pads, transmission lines, or both; forming a plurality of grounding vias in the insulation layer, the grounding vias being electrically connected to the ground plane; and forming a feeding via in the insulation layer, the feeding via being electrically connected to the conductive via stub; and connecting an IC (integrated circuit) chip to the antenna using the interposer device" as claimed in claim 34. It is for this reason in combination with all the other limitations in the independent claims 26 and 34, that claims 26, 29-33, 34-35 and 37-38 are allowable over prior art of record.

#### ***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EA  
6/16/08

/Douglas W Owens/  
Supervisory Patent Examiner, Art Unit 2821  
June 19, 2008